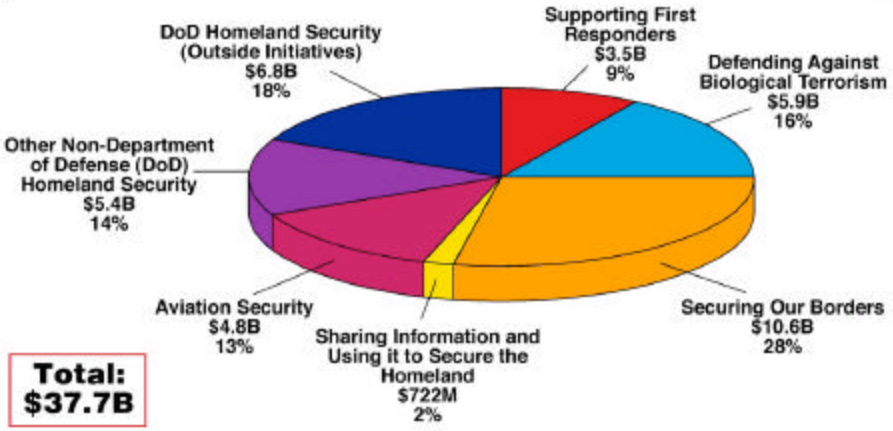
Homeland Security:
Distribution of FY 2003 President's Budget Request



Biodefense: Complementary Roles within DHHS

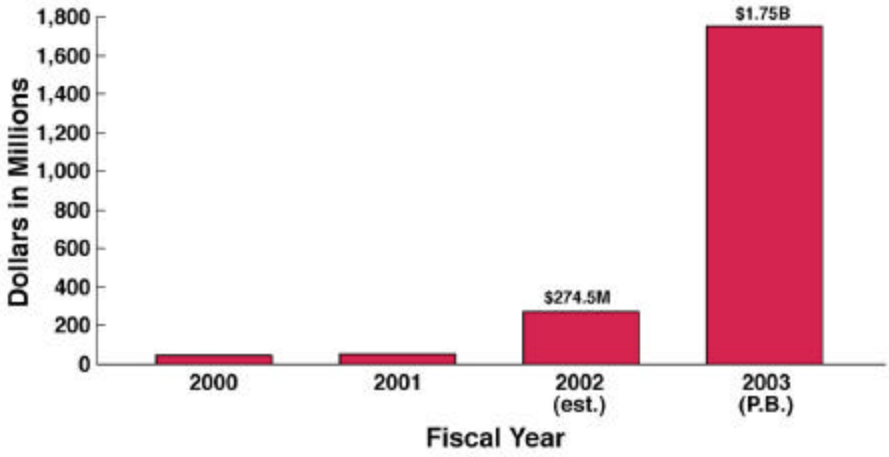
CDC
- Surveillance and Detection
- Train Local Response Teams
- Maintain Vaccine/Antimicrobial Stockpiles

NIH
- Conduct Basic Research
- Develop Medical Interventions

FDA
- Regulatory Approval
  - Vaccines
  - Therapeutics
  - Diagnostics

OEP
- Mobilize Resources to Coordinate State/Local Response

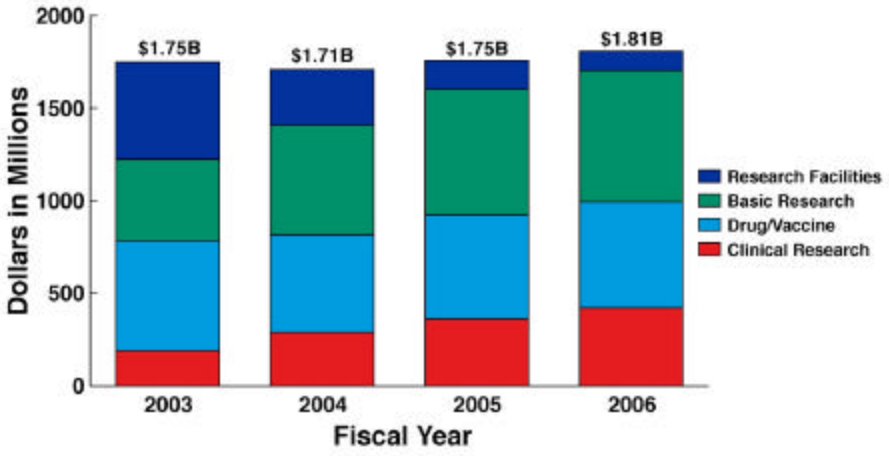
NIH Biodefense Research Funding, FY 2000-2003



NIH Plan for Biodefense Research, FY 2003

Research Facilities Construction	**$521.1M**
■ Build BSL-3 and BSL-4 labs (including at the comprehensive research centers)	
Basic Research on Agents of Bioterrorism	**440.6M**
■ Support research programs in at least 4 comprehensive extramural centers in FY03	
■ Conduct genomic sequencing and proteomic analysis on up to 25 pathogens	
■ Expand training programs	
Drug/Vaccine/Diagnostics Discovery and Development	**591.9M**
■ Test and develop candidates for next-generation anthrax vaccine	
■ Engage industry through challenge grants	
■ Establish repositories for diagnostic and drug reagents	
■ Develop animal models, establish high-containment facilities and services	
Clinical Research	**194.3M**
■ Expand clinical trials infrastructure (VTEUs)	
■ Conduct smallpox, anthrax, and ebola clinical trials	
Total	**$1,747.9M**

NIH Plan for Biodefense Research, FY 2003-FY 2006



Planning for Biodefense Research

- NIAID Strategic Plan for Biodefense Research
- NIAID Biodefense Research Agenda
- NIAID Blue Ribbon Panel on Biodefense and its Implications for Medical Research, Feb. 4-5, 2002

Bioterrorism: Characteristics of CDC Category A Agents

- Can be easily disseminated or transmitted from person to person
- Cause high mortality, and have the potential for major public health impact
- Might cause public panic and social disruption
- Require special action for public health preparedness

Source: CDC

Bioterrorism: Category A Agents

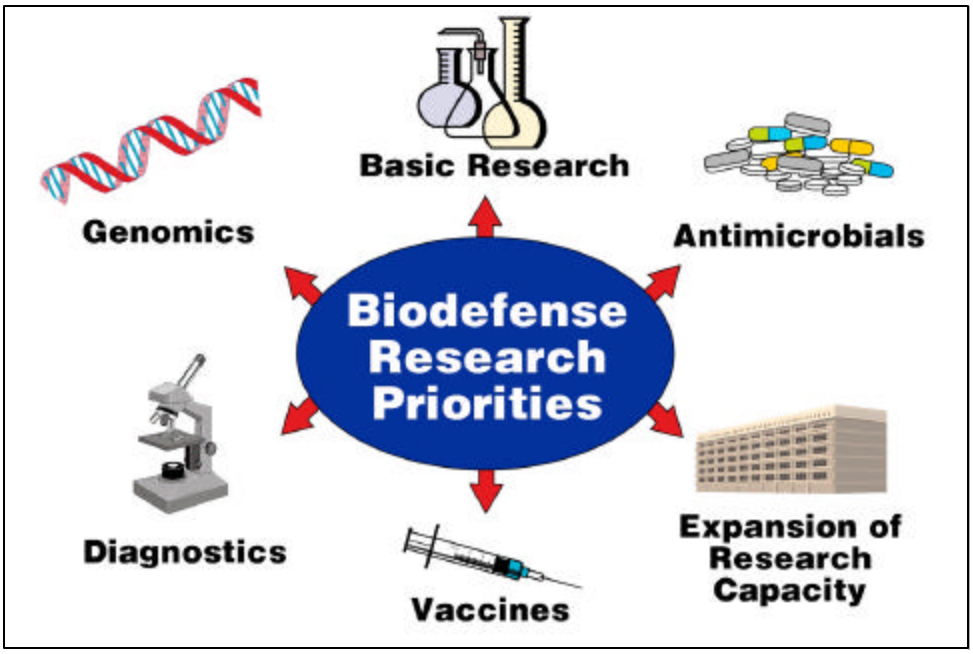
Biological Agent(s)	Disease
Variola major	Smallpox
Bacillus anthracis	Anthrax
Yersinia pestis	Plague
Clostridium botulinum (botulinum toxins)	Botulism
Francisella tularensis	Tularemia
Filoviruses and Arenaviruses (e.g., *Ebola virus, Lassa virus*)	Viral hemorrhagic fevers

Source: CDC

Bioterrorism: Category B and C Agents

Biological Agent(s)	Disease
Category B	
Coxiella burnetii	Q fever
Brucella spp.	Brucellosis
Burkholderia mallei	Glanders
Burkholderia pseudomallei	Melioidosis
Alphaviruses (VEE, EEE, WEE)	Encephalitis
Rickettsia prowazekii	Typhus fever
Toxins (e.g. Ricin, Staph. enterotoxin B)	Toxic syndromes
Chlamydia psittaci	Psittacosis
Food safety threats (e.g. *Salmonella spp.*, *E. coli* O157:H7)	
Water safety threats (e.g. *Vibrio cholerae*, *Cryptosporidium parvum*)	
Category C	
Emerging threat agents (e.g. Nipah virus, hantavirus)	

Source: Rotz et al., *Emerg Infect Dis*, 2/2002



NIH Biodefense Research Pathway

New NIAID Facilities to Study Agents of Bioterrorism and Emerging Diseases